

## AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

1. (Currently amended) A circuit to reduce the variations of an auto-supply voltage of a control circuit of a switching power supply wherein said control circuit supplies an activation or deactivation signal for a power transistor comprising:

a generator of said auto-supply voltage;

a controlled switch capable of selectively coupling said generator to said control circuit; [[and]]

a driving circuit of said controlled switch that supplies a closing signal of said controlled switch after a predefined time delay starting from said deactivation command; and

a first comparator that compares a voltage proportional to the load of said switching power supply with a first reference voltage, said predefined time delay being substantially zero when said voltage proportional to the load of said switching power supply is lower than said first reference voltage.

2. (Previously presented) The circuit of claim 1 further comprising a circuit generator that generates said predefined time delay.

3. (Previously presented) The circuit of claim 2 wherein said circuit generator generates said predefined time delay proportionally to a voltage proportional to the load of said switching power supply.

4. (Cancelled)

5. (Previously presented) The circuit of claim 1 [[4]] further comprising a second comparator that compares the voltage proportional to the load of said switching power supply with a second reference voltage, said controlled switch remaining open when said voltage proportional to the load of said switching power supply is higher than said second reference voltage.

6. (Previously presented) The circuit of claim 1 wherein said driving circuit of said controlled switch supplies an opening signal of said controlled

switch starting from said activation command.

7. (Previously presented) The circuit of claim 1 wherein the controlled switch comprises a PNP transistor.

8. (Currently amended) A method for reducing the variations of an auto-supply voltage of a control circuit of a switching power supply wherein said control circuit supplies an activation or deactivation signal for a power transistor comprising selectively coupling the secondary of a transformer of said switching supply to said control circuit after a predefined delay ~~[[of]]~~ time starting from said deactivation command and wherein the control circuit comprises a comparator that compares a voltage proportional to the load of said switching power supply with a reference voltage, said predefined delay time being substantially zero when said voltage proportional to the load of said switching power supply is lower than said reference voltage.

9. (Currently amended) A switching power supply including a circuit to reduce the variations of an auto-supply voltage of a control circuit of the switching power supply wherein said control circuit supplies an activation or deactivation signal for a power transistor comprising:

a generator of said auto-supply voltage;

a controlled switch operable for selectively coupling said generator to said control circuit; ~~[[and]]~~

a driving circuit of said controlled switch that supplies a closing signal of said controlled switch after a predefined time delay starting from said deactivation command; and

a first comparator that compares a voltage proportional to the load of said switching power supply with a first reference voltage, said predefined time delay being substantially zero when said voltage proportional to the load of said switching power supply is lower than said first reference voltage.

10. (Previously presented) The switching power supply of claim 9 further comprising a circuit generator that generates said predefined time delay.

11. (Previously presented) The switching power supply of claim 10

wherein said circuit generator generates said predefined time delay proportionally to a voltage proportional to the load of said switching power supply.

12. (Cancelled)

13. (Currently amended) The switching power supply of claim 9 [[12]] further comprising a second comparator that compares the voltage proportional to the load of said switching power supply with a second reference voltage, said controlled switch remaining open when said voltage proportional to the load of said switching power supply is higher than said second reference voltage.

14. (Previously presented) The switching power supply of claim 9 wherein said driving circuit of said controlled switch supplies an opening signal of said controlled switch starting from said activation command.

15. (Previously presented) The circuit of claim 9 wherein the controlled switch comprises a PNP transistor.

16. (New) A method for reducing the variations of an auto-supply voltage of a control circuit of a switching power supply wherein said control circuit supplies an activation or deactivation signal for a power transistor comprising selectively coupling a secondary of a transformer of said switching supply to said control circuit after a predefined delay time starting from said deactivation command and wherein the control circuit comprises a comparator that compares the voltage proportional to the load of said switching power supply with a reference voltage, said power transistor remaining open when said voltage proportional to the load of said switching power supply is higher than said reference voltage.